

# Valentina Dargam

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## EDUCATION

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- Ph.D. Candidate** *Florida International University* Fall 2018 - Present  
*Major: Biomedical Engineering*
- Bachelor of Science** *Florida International University* May 2018  
*Major: Biomedical Engineering (Cum Laude)*

## RESEARCH INTERESTS

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I am interested in developing low-cost diagnostic techniques that can identify early stages of disease and facilitate timely interventions, particularly in underserved populations.

## RESEARCH SUPPORT and GRANTS

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- NIH Ruth L. Kirschstein NRSA Individual Predoctoral Fellowship (Parent F31)** 2020 – 2023  
*Project: "Correlating Aortic Valve Structure to Heart Sound Characteristic"*
- McNair Graduate Fellowship** 2018 – 2020  
*Project: "Diagnosing Early Aortic Valve Disease: Correlation Between Heart Sounds and Remodeling"*

## JOURNAL PUBLICATIONS

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\* indicates co-author

1. Chaparro D\*, **Dargam V\***, Alvarez P, Yeung J, Saytashev I, Bustillo J, Loganathan A, Ramella-Roman J, Agarwal A, and Hutcheson J. A Method to Quantify Tensile Biaxial Properties of Mouse Aortic Valve Leaflets. *Journal of Biomechanical Engineering*. 2020 April.

## RESEARCH and TECHNICAL EXPERIENCE

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- Entrepreneur Lead, National Science Foundation Innovation Corps (I-Corps™)** Fall 2020  
Department of Biomedical Engineering, *Florida International University*
- *PI:* Joshua D. Hutcheson, PhD
  - *Duties:* Responsible to carry-out the customer discovery process for the technology being developed in mt PhD project. Coordinated and conducted over 100 interviews with clinicians and key partners to determine the commercialization potential of the technology.
- Lead Investigator and Undergraduate Research Assistant** 2017 – 2019  
Department of Modern Languages and Biomedical Engineering, *Florida International University*
- *Mentor:* Melissa Baralt, PhD
  - *Research Project:* Executive Functioning in Bilinguals, Monolinguals and Heritage Language Speakers with Limited Oral Proficiency
  - *Duties:* Responsible for the preparation, administration, data collection and analysis of project

## PITCHING COMPETITIONS & CONFERENCE PRESENTATIONS

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- PhD Project** *Diagnosing Early Aortic Valve Disease: Correlation Between Heart Sounds and Remodeling*
1. Poster Presentation: Graduate Student Appreciation Week 2019 Scholarly Forum, FIU, Miami, FL
    - Won 2<sup>nd</sup> place award for the College of Engineering and Computing
    - Invitation to present at the Florida Statewide Graduate Student Research Symposium
  2. Poster Presentation: Florida Statewide Graduate Student Research Symposium for the 2019 Conference of Florida Graduate Schools, FIU, Miami, FL
    - Won 1<sup>st</sup> place in the Health and Life Sciences category
  3. Oral Presentation: 2019 Biomedical Engineering Society Meeting, Philadelphia, PA
  4. Oral Presentation: 2020 Biomedical Engineering Society Meeting, Philadelphia, PA

**Cardiacoustics** *An AI-based tool that detects and monitors progression of valvular heart disease and aids cardiologists and patients in determining the best course of treatment*

1. Pitch Competition: 2019 Florida Blue Health Innovation Pitch Competition, Orlando, FL  
- Won 2<sup>nd</sup> place (\$5,000 award) for the implementation of big data to solve problem in treating and managing of chronic diseases
2. Pitch Competition: 2020 eMerge Americas Pitch Night at StartUP FIU, Miami, FL  
- Winner and selected to be fast-tracked into eMerge Americas 2020 Startup Showcase
3. Booth Exhibition: 2020 Synapse Summit, Tampa, FL
4. Pitch Competition: Florida Venture Forum's 2020 Early Stage Capital Conference, Tampa, FL

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## PATENTS

U.S. Provisional Patent Application Serial No. 62/976,584, filed February 14, 2020, entitled "Methods and devices for processing heart sounds to detect and quantify early aortic valve remodeling".

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## HONORS, AWARDS, RECOGNITION, SCHOLARSHIPS and FELLOWSHIPS

**Florida International University** *Graduate*

National Science Foundation (NSF) Innovation Corps (I-Corps) Award	September 2020
Biomedical Engineering Society Career Development Award	August 2020
eMerge Americas Pitch Night at StartUP FIU Winner	December 2019
2 <sup>nd</sup> Place in Florida Blue Health Innovation Pitch Competition	September 2019
Biomedical Engineering Society Career Development Award	July 2019
1st Place at Florida Statewide Graduate Research Symposium	April 2019
2nd Place Award at FIU's Graduate Student Appreciation Week 2019 Scholarly Forum	April 2019

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## TEACHING and ADVISING

**Graduate Mentor, Opportunities for Undergraduate Research and Scholarship Program** 2020 – Present  
*College of Engineering, Florida International University*

- Mentored an undergraduate student in data collection, analysis, and visualization, and cardiovascular physiology
- Guided student in preparation of presentations and applications to graduate school and funding opportunities

**Undergraduate Learning Assistant, Hybrid Biology I** 2016 –2018  
*Florida International University, Biology Department*

- Meet with faculty instructor weekly to plan learning agenda for the week, reflect on strategies that worked or did not work previous week, and work on improvements for the classroom
- Facilitate collaboration among learning teams of up to 18 students by formatively assessing student understanding and asking guiding questions

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## LEADERSHIP, OUTREACH, and TECHNICAL EXPERIENCE

**Symposium Organizer** *LatinX BME Symposium* December 2020 – Present

- Launched and structured a LatinX BME Symposium that gathers scientist in the field of biomedical engineering from the LatinX community for an event that includes oral presentations, keynote speaker, mental health panel and imposter syndrome discussions

**Community Outreach Organizer** *Family Fun Sundays at The Motivational Edge* August 2018 – Present

- Organized and supervised a once a month event to showcase science activities with lab members to teach kids about the cardiovascular system

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## TECHNICAL SKILLS

- **Programming Languages:** Matlab
- **Software / Application Skills:** Minitab, Microsoft Office, Mac OS, Windows OS
- **Language Skills:** Fluent in English and Spanish, and proficient in Portuguese.